SEQUENCE LISTING

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<110> Wolosker, Herman
      Takashashi, Maasaki
      Mothet, Jean-Pierre
      Ferris, Christopher
      Snyder, Solomon

<120> Mammalian Serine Racemase


<130> 001107.00171


<160> 11


<170> FastSEQ for Windows Version 3.0


<210> 1
<211> 1018
<212> DNA
<213> Mus musculus


<400> 1
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aatcttttct tcaaatgtga gctcttccag aaaactgggt cttttaagat tcgaggtgcc     180
cttaatgcca tcagaggctt aattcctgac acgccagaag agaagcccaa agccgtagtt     240
actcacagca gcggaaacca tggccaagct ctcacctatg ctgctaaact ggaaggaatt     300
cctgcttaca ttgtggttcc ccaaacagct cccaactgca agaaactggc aatccaagcc     360
tatggagcat cgatagtata ctgtgaccca agtgacgagt ccagagaaaa ggtcactcaa     420
agaattatgc aagaaacaga aggcatcttg gtccatccca accaggagcc tgcagtgata     480
gctggacaag gaacaattgc cctggaagtg ctgaaccagg ttcccttggt agatgcactg     540
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aaactgaaag gagaactgac ccccaatctt catcctccag aaaccatagc agatggtgtc     720
aaatccagca ttggcttgaa tacctggcct attataagag accttgtgga tgatgtcttc     780
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gtctctccag aagtaaagaa cgtctgcatt gtactcagtg gggggaatgt agacctaacc     960
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<210> 2
<211> 608
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(608)

<221> misc_feature
<222> (1)...(608)
<223> n = A,T,C or G
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1

<400> 2

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ttgaaaaagc tcatatcaac attcgagatt ctatccacct cacaccagtg ctaacaagct     120
ccattttgaa tcaactaaca gggcgcaatc ttttcttcaa atgtgaactc ttccagaaaa     180
caggatcttt taagattcgt ggtgctctca atgccgtcag aagcttggtt cctgatgctt     240
tagaaaggaa gccgaaagct gttgttactc acagcagtgg aaaccatggc caggctctca     300
cctatgctgc caaattggaa ggaattcctg cttatattgt ggtgccccag acagctccag     360
actgtaaaaa acttgcaata caagcctacg gagcgtcaat tgtatactgt gaacctagtg     420
atgaagtcca gagaaaatgt tgcaaaaagg agttacagaa gaaacagaag gcatcatggt     480
acatcccaac caggaacctg cagtgatagc tggacaaggg acaattgccc tggaagtgct     540
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ccgggaat                                                             608
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        <210> 3
        <211> 509
        <212> DNA
        <213> Homo sapiens

        <220>
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        <222> (1)...(509)
        <223> n = A,T,C or G

        <400> 3

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tgaaattaag tgtgcaaccc agctggtgtg ggagaggatg aaactactca ttgaacctac     180
agctggtgtt ggagtggctg ctgtgctgtc tcaacatttt caaactgttt ccccagaagt     240
aaagaacatt tgtattgtgc tcagtggtgg aaatgtagac ttaacctcct ccataacttg     300
ggtgaagcag gctgaaaggc cagcttctta tcagtctgtt tctgtttaat ttacagaaaa     360
ggaaatggtg ggaattcagt gtctttagat actgaagaca ttttgtttcc tagtattgtc     420
aactcttagt tatcagattc ttaatggaga gtggctattt cattaaggtt taatagtttt     480
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        <210> 4
        <211> 32
        <212> DNA
        <213> Mus musculus

        <400> 4

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        <210> 5
        <211> 34
        <212> DNA
        <213> Mus musculus

        <400> 5

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2

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<210> 6
<211> 27
<212> PRT
<213> Rat rattus

<400> 6

Leu Leu Ile Glu Pro Thr Ala Gly Val Gly Leu Ala Ala Val Leu Ser
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Gln His Phe Gln Thr Val Ser Pro Glu Val Lys
            20              25


<210> 7
<211> 25
<212> PRT
<213> Rat rattus

<400> 7

His Leu Asn Ile Gln Asp Ser Val His Leu Thr Pro Val Leu Thr Ser
 1               5                  10                  15

Ser Ile Leu Asn Gln Ile Ala Gly Arg
            20                  25


<210> 8
<211> 339
<212> PRT
<213> Mus musculus

<400> 8

Met Cys Ala Gln Tyr Cys Ile Ser Phe Ala Asp Val Glu Lys Ala His
 1               5                  10                  15

Ile Asn Ile Gln Asp Ser Ile His Leu Thr Pro Val Leu Thr Ser Ser
            20                  25                  30

Ile Leu Asn Gln Ile Ala Gly Arg Asn Leu Phe Phe Lys Cys Glu Leu
            35                  40                  45

Phe Gln Lys Thr Gly Ser Phe Lys Ile Arg Gly Ala Leu Asn Ala Ile
    50                  55                  60

Arg Gly Leu Ile Pro Asp Thr Pro Glu Glu Lys Pro Lys Ala Val Val
65                  70                  75                  80

Thr His Ser Ser Gly Asn His Gly Gln Ala Leu Thr Tyr Ala Ala Lys
                85                  90                  95

Leu Glu Gly Ile Pro Ala Tyr Ile Val Val Pro Gln Thr Ala Pro Asn
            100                 105                 110
```

```
Cys Lys Lys Leu Ala Ile Gln Ala Tyr Gly Ala Ser Ile Val Tyr Cys
        115                 120                 125

Asp Pro Ser Asp Glu Ser Arg Glu Lys Val Thr Gln Arg Ile Met Gln
        130                 135                 140

Glu Thr Glu Gly Ile Leu Val His Pro Asn Gln Glu Pro Ala Val Ile
145                 150                 155                 160

Ala Gly Gln Gly Thr Ile Ala Leu Glu Val Leu Asn Gln Val Pro Leu
                165                 170                 175

Val Asp Ala Leu Val Val Pro Val Gly Gly Gly Gly Met Val Ala Gly
                180                 185                 190

Ile Ala Ile Thr Ile Lys Ala Leu Lys Pro Ser Val Lys Val Tyr Ala
        195                 200                 205

Ala Glu Pro Ser Asn Ala Asp Asp Cys Tyr Gln Ser Lys Leu Lys Gly
        210                 215                 220

Glu Leu Thr Pro Asn Leu His Pro Pro Glu Thr Ile Ala Asp Gly Val
225                 230                 235                 240

Lys Ser Ser Ile Gly Leu Asn Thr Trp Pro Ile Ile Arg Asp Leu Val
                245                 250                 255

Asp Asp Val Phe Thr Val Thr Glu Asp Glu Ile Lys Tyr Ala Thr Gln
                260                 265                 270

Leu Val Trp Gly Arg Met Lys Leu Leu Ile Glu Pro Thr Ala Gly Val
        275                 280                 285

Ala Leu Ala Ala Val Leu Ser Gln His Phe Gln Thr Val Ser Pro Glu
        290                 295                 300

Val Lys Asn Val Cys Ile Val Leu Ser Gly Gly Asn Val Asp Leu Thr
305                 310                 315                 320

Ser Leu Asn Trp Val Gly Gln Ala Glu Arg Pro Ala Pro Tyr Gln Thr
                325                 330                 335

Val Ser Val


        <210> 9
        <211> 1023
        <212> DNA
        <213> Homo sapiens

        <400> 9

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aatctttct tcaaatgtga actcttccag aaaacaggat cttttaagat tcgtggtgct     180
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4

```
ctcaatgccg tcagaagctt ggttcctgat gctttagaaa ggaagccgaa agctgttgtt    240
actcacagca gtggaaacca tggccaggct ctcacctatg ctgccaaatt ggaaggaatt    300
cctgcttata ttgtggtgcc ccagacagct ccagactgta aaaaacttgc aatacaagcc    360
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aagctgaagg ggaaactgat gcccaatctt tatcctccag aaaccatagc agatggtgtc    720
aaatccagca ttggcttgaa cacctggcct attatcaggg accttgtgga tgatatcttc    780
actgtcacag aggatgaaat taagtgtgca acccagctgg tgtgggagag gatgaaacta    840
ctcattgaac ctacagctgg tgttggagtg gctgctgtgc tgtctcaaca tttttcaaact    900
gtttccccag aagtaaagaa catttgtatt gtgctcagtg gtggaaatgt agacttaacc    960
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taa                                                                 1023
```

<210> 10
<211> 340
<212> PRT
<213> Homo sapiens

<400> 10

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Met Cys Ala Gln Tyr Cys Ile Ser Phe Ala Asp Val Glu Lys Ala His
1               5                   10                  15

Ile Asn Ile Arg Asp Ser Ile His Leu Thr Pro Val Leu Thr Ser Ser
            20                  25                  30

Ile Leu Asn Gln Leu Thr Gly Arg Asn Leu Phe Phe Lys Cys Glu Leu
        35                  40                  45

Phe Gln Lys Thr Gly Ser Phe Lys Ile Arg Gly Ala Leu Asn Ala Val
    50                  55                  60

Arg Ser Leu Val Pro Asp Ala Leu Glu Arg Lys Pro Lys Ala Val Val
65                  70                  75                  80

Thr His Ser Ser Gly Asn His Gly Gln Ala Leu Thr Tyr Ala Ala Lys
                85                  90                  95

Leu Glu Gly Ile Pro Ala Tyr Ile Val Val Pro Gln Thr Ala Pro Asp
            100                 105                 110

Cys Lys Lys Leu Ala Ile Gln Ala Tyr Gly Ala Ser Ile Val Tyr Cys
            115                 120                 125

Glu Pro Ser Asp Glu Ser Arg Glu Asn Val Ala Lys Arg Val Thr Glu
        130                 135                 140

Glu Thr Glu Gly Ile Met Val His Pro Asn Gln Glu Pro Ala Val Ile
145                 150                 155                 160

Ala Gly Gln Gly Thr Ile Ala Leu Glu Val Leu Asn Gln Val Pro Leu
                165                 170                 175
```

5

```
Val Asp Ala Leu Val Val Pro Val Gly Gly Gly Gly Met Leu Ala Gly
            180                 185                 190

Ile Ala Ile Thr Val Lys Ala Leu Lys Pro Ser Val Lys Val Tyr Ala
            195                 200                 205

Ala Glu Pro Ser Asn Ala Asp Asp Cys Tyr Gln Ser Lys Leu Lys Gly
    210                 215                 220

Lys Leu Met Pro Asn Leu Tyr Pro Pro Glu Thr Ile Ala Asp Gly Val
225                 230                 235                 240

Lys Ser Ser Ile Gly Leu Asn Thr Trp Pro Ile Ile Arg Asp Leu Val
            245                 250                 255

Asp Asp Ile Phe Thr Val Thr Glu Asp Glu Ile Lys Cys Ala Thr Gln
            260                 265                 270

Leu Val Trp Glu Arg Met Lys Leu Leu Ile Glu Pro Thr Ala Gly Val
            275                 280                 285

Gly Val Ala Ala Val Leu Ser Gln His Phe Gln Thr Val Ser Pro Glu
    290                 295                 300

Val Lys Asn Ile Cys Ile Val Leu Ser Gly Gly Asn Val Asp Leu Thr
305                 310                 315                 320

Ser Ser Ile Thr Trp Val Lys Gln Ala Glu Arg Pro Ala Ser Tyr Gln
            325                 330                 335

Ser Val Ser Val

        <210> 11
        <211> 1672
        <212> DNA
        <213> Mus musculus

        <400> 11

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taaaacacag gagctgtcag cagccatgtg tcctgcagta cggagccagc tggtctgctg       180
tgagaaggaa gccgccgtgc cagaggcagc agagaaccat gtgtgctcag tactgcatct       240
cctttgctga tgttgaaaaa gctcatatca cattcaagac tctatccac ctcaccccag        300
tgctaacaag ctccattttg aatcaaatag cagggcgcaa tctttttcttc aaatgtgagc      360
tcttccagaa aactgggtct tttaagattc gaggtgccct taatgccatc agaggcttaa       420
ttcctgacac gccagaagag aagcccaaag ccgtagttac tcacagcagc ggaaaccatg       480
gccaagctct caccctatgct gctaaactgg aaggaattcc tgcttacatt gtggttcccc      540
aaacagctcc caactgcaag aaactggcaa tccaagccta tggagcatcg atagtatact       600
gtgacccaag tgacgagtcc agagaaaagg tcactcaaag aattatgcaa gaaacagaag       660
gcatcttggt ccatcccaac caggagcctg cagtgatagc tggacaagga caattgccc        720
tggaagtgct gaaccaggtt cccttggtag atgcactggt ggtaccagta ggaggaggag       780
gaatggttgc tggaatagcc attacaatta aggccctgaa acctagtgtg aaggtatacg       840
ctgctgagcc ctcgaatgca gatgactgct accagtctaa actgaaagga gaactgaccc       900
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6

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ccaatcttca  tcctccagaa  accatagcag  atggtgtcaa  atccagcatt  ggcttgaata      960
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agtatgcaac  ccagctggtg  tggggggagaa  tgaaactgct  cattgagccg  actgctggcg     1080
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ctgaacggcc  agctccttac  cagacggtct  gtttaaattc  aggcaagatt  gtctctagat     1260
gaaaatttttg  tttccatctt  cccttttaaaa  attatgttca  aaatcctaat  gaagaaagtg     1320
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agctgcctgg  tcacaaccca  gactccaaca  ctggagtttt  ggttggttgc  agtagagaca     1440
gaacccaact  gagtctctta  ctccatgtct  acttcagaca  ctgttgaaga  gatgtcactt     1500
ttaacccaag  gtactggctc  tggtacatat  gggtcataag  tccacttggg  aaatactcgc     1560
ttatagagat  tcattaatac  tgtgtcctga  gatttcagct  ttccccatca  aaactgcact     1620
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